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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/506,386
Filing Date: September 02, 2004
Appellant(s): BEDNARZ ET AL.

Klaus P. Stoffel
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 12, 2009 appealing from the Office action mailed May 20, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

A substantially correct copy of appealed claims 10 and 11 appear on page 11 of the Appendix to the appellant's brief. The minor errors are as follows: (1) with respect to claim 10, "celli" as seen in line 5 should be 'cell;' and (2) with respect to claim 11 "CO2" in line 2 should be 'CO₂'. (It is noted that a clean copy of the claims without such

minor typographical errors can be found in the defective appeal brief submitted November 24, 2008.)

(8) Evidence Relied Upon

3,544,374

D'ALESSANDRO

12-1970

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3544374 (D'Alessandro et al.).

As to claim 10, D'Alessandro et al. teaches a method to prevent corrosion of hydrogen permeable membranes in anodes (col. 2, lines 27-31). The method comprises applying a direct current potential between the cathode and anode of the fuel cell, thus reducing it with respect to the cathode (col. 2, lines 45-51). Furthermore, corrosion prevention is achieved by removing hydrogen from the membrane, where hydrogen removal can be achieved by flushing the membrane with an inert gas, including nitrogen, carbon dioxide, flue gas, argon, and **steam** (col. 2, lines 51-70). In addition, it is said that steam is used to purge all of the hydrogen from the vicinity of the membrane (col. 2, lines 70-72; col. 3, lines 1-7). It is noted that although molten sodium

hydroxide is embodied for the electrolyte, it is also recognized that that molten alkali metal hydroxides and molten carbonates can be used with such an invention, thus teaching the use of molten carbonate fuel cells (col. 3, lines 59-60; col. 5, lines 27-41). Flushing the anode membrane and applying the direct current would inherently yield the anodes inert, since it applies the same process as claim 10 of the instant application.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In *re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)

In the case of the instant application the basis for expectation of inherency is that D'Alessandro et al.'s method uses steps employed by the instant application. Therefore, the resulting state of the anodes would be in the same state (inert) after the application of the same method.

The Examiner requires applicant to provide that that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product.

Whether the rejection is based on inherency' under 35 U.S.C. 102, on *prima facie* obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. In *re Fitzgerald*, 619 F.2d 67, 70, 205 USPQ 594, 596

(CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)).

As to claim 11, D'Alessandro et al. teaches flushing the anode membrane with an inert gas including nitrogen, **carbon dioxide**, flue gas, argon, and steam prior to steam treatment (col. 2, lines 51-72; col. 3, lines 1-7). Therefore supplying CO₂ as the inert gas prior to steam is one embodiment of D'Alessandro et al. See the drawing for evidence that inert gas and steam are used for the flushing (via valves [31] and [26], respectively).

Alternately, it would have been obvious to choose carbon dioxide as the inert gas, as it is one of the inert gases listed in a short laundry list of inert gases that can be used for flushing, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

As to claims 12 and 13, D'Alessandro et al.'s method teaches that the inert gas (the embodiment where carbon dioxide is used is chosen) is introduced and is followed by a steam purging (col. 2, lines 51-72; col. 3, lines 1-7). Therefore carbon dioxide is providing the initial inerting. After it is used to flush, steam flushing follows it. Thus it can be interpreted that the carbon dioxide is reduced (to zero) prior to steam flushing.

Alternately, it can be interpreted that both carbon dioxide and steam are flowing at the same time (after the steam is introduced). However, there is motivation to reduce the carbon dioxide flow once steam flow is introduced; the motivation is to accommodate the space that needs flushing. Therefore it would have been obvious to

one having ordinary skill in the art at the time the claimed invention was made to lower the carbon dioxide flow once steam is introduced in order to have the correct flow as to not overflow the anode chamber while inerting.

(10) Response to Argument

Issue I – Appellant argues that the voltage that is applied when hydrogen is not supplied to the anode is drawn to the prevention of corrosion (in D'Alessandro et al.).

Examiner respectfully disagrees with Applicant's position.

The fact that D'Alessandro et al.'s invention is directed towards a different purpose does not preclude the method taught to achieve this purpose, specifically the fact that steam in the presence with a direct current is taught. It is noted that steam is specifically embodied as well as a molten sodium hydroxide electrolyte (which is likened to molten carbonate), wherein a voltage of 3 volts is applied to the electrolyte. See col. 3; lines 4-6, 34-36, 58-60 and col. 5; lines 27-33. (It is noted that although D'Alessandro talks about a practical upper limit of direct current applied to the cell being less than that at which electrolysis would occur, such electrolysis is with respect to the electrolyte, not the purging gas (steam) (col. 3, lines 29-34)). This is made clear by the antecedent basis made within col. 3, lines 29-34, which speaks specifically of the electrolyte (alkali metal hydroxide) (thus the deposition of alkali metal and electrolysis is drawn to the electrolyte as well, as it is impossible for steam, water vapor, to deposit an alkali metal).) It is emphasized that although D'Alessandro et al.'s invention is drawn towards

a different purpose, it does not negate the fact that D'Alessandro does teach the method as claimed by the instant application.

Again, it is submitted that D'Alessandro et al. meet the claim language as it teaches, reiterated herein: (1) of a fuel cell with molten electrolytes (although a molten sodium hydroxide (alkali metal hydroxide) is specifically embodied in the example, D'Alessandro et al. of molten carbonate electrolytes as well) (col. 3, lines 58-60; col. 5, lines 27-42); (2) supplying a purging gas to the anode, wherein steam (water vapor) is specifically embodied, to remove hydrogen when the hydrogen source is not being provided to the anode (standby operation wherein no fuel is supplied to the anode half-cell of the fuel cell) (col. 2, lines 64 to col. 3, line7); and (3) applying a direct current potential to the system, wherein 3 volts or higher is embodied (col. 3, lines 19-21 and 29-36). Under these conditions, it would be expected that the prior art produces a reducing atmosphere at the anode by electrolysis (in the presence of the steam supplied to the anode and a voltage potential applied to the system). Therefore, a basis of inherency was made and is maintained, as no proof is provided that the process used by D'Alessandro would not inert via electrolysis of the steam (water vapor). There is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67.

It is re-emphasized that the prior art meets the limitations of the claim. In particular that water vapor, or steam, is supplied to the anode during standby when an external voltage is applied to the fuel cell. Accordingly, under these conditions, it would

be expected that the prior art produces a reducing atmosphere at the anode by electrolysis (in the presence of the steam supplied to the anode and a voltage potential applied to the system). As mentioned above, while Appellant argues a reducing atmosphere by electrolysis would not occur, they have not provided any clear and convincing evidence to show that the prior art process does not inert the anode as recited in the claims.

Issue II – Appellant argues that during the times of turning on and turning off, there is no hydrogen produced and that the voltage applied between the anode and the cathode does not induce electrolysis.

Examiner respectfully disagrees.

Again, it is emphasized that D'Alessandro teaches steam being introduced to the anode wherein a voltage (3 volts specifically taught) is applied (col. 2, lines 64-70; col. 3; lines 4-6, 34-36). Accordingly, Examiner submits that D'Alessandro's method is the same as that claimed by the instant application. (Please see the response to Issue I for more specific citations as to where the method of D'Alessandro et al. is clearly set forth, and as to how such a method would result in the same conditions as claimed, thus yielding electrolysis.) Therefore, a basis of inherency was made and is maintained, as no proof is provided that the process used by D'Alessandro would not inert via electrolysis of the steam (water vapor) (and thus providing hydrogen via such electrolysis). There is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the

subject matter is in fact inherent in the prior art reference. Schering Corp. v. Geneva Pharm. Inc., 339 F.3d 1373, 1377, 67.

Issue III – Appellant argues that D'Alessandro et al.'s application of a voltage does not mean that electrolysis is present, specifically that a certain minimum voltage needs to be applied.

Examiner respectfully disagrees.

As set forth above, D'Alessandro teaches steam being introduced to the anode of the system, wherein a voltage (3 volts specifically taught) is applied (col. 2, lines 64-70; col. 3; lines 4-6, 34-36). It is noted that Applicant has not provided any convincing proof as to what the minimum voltage of steam (water vapor) is, specifically that it is less than 3 volts. Accordingly, the rejection of record has been upheld. It is noted that Applicant has provided three pieces of evidence attempting to show the existence of such a minimum voltage for electrolysis (as applied to steam). The reasons as to why such evidence is not convincing is set forth below, as addressed under Issue V.

Issue IV – Appellant argues that D'Alessandro et al. states that the anode is flushed with inert gas (steam embodied), wherein electrolysis would require the presence of a non-inert gas.

Examiner respectfully disagrees.

The fact that D'Alessandro et al. does teach of flushing with inert gases, it does not negate the fact that steam is taught to be used, wherein steam (water vapor) electrolyzes upon the application of a current. It also does not negate the fact that D'Alessandro does teach the method as claimed by the instant application. In particular

that water vapor, or steam, is supplied to the anode during standby when an external voltage (3 volts embodied) is applied to the fuel cell. Accordingly, under these conditions, it would be expected that the prior art produces a reducing atmosphere at the anode by electrolysis (in the presence of the steam supplied to the anode and a voltage potential applied to the system). (Please see the response to Issue I for specific citations as to where the method, as defined above, can be found in D'Alessandro et al.) Therefore, a basis of inherency was made and is maintained, as no proof is provided that the process used by D'Alessandro would not inert via electrolysis of the steam (water vapor). There is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67.

Issue V – Appellant offers evidence dealing with electrolysis: (a) A partial translation of “Electrolysis” on German Wikipedia, which states that a decomposition voltage must be applied for electrolysis, (b) A portion translated from a textbook, “Electrochemie I,” which discusses decomposition voltage which must be exceeded for electrolysis to occur, and (c) A translation of a portion of DE 19622693, wherein a protective potion is applied in the shutting down of electrolysis plants, wherein the voltage is held low so that no electrolysis takes place. (d) From such teachings Appellant draws the conclusion that since D'Alessandro et al. does not mention inducing electrolysis that the voltage applied is not sufficient to do so.

Examiner respectfully disagrees.

With respect to (a) Wikipedia is not recognized by the U.S. Patent Office as an authoritative source given that the information on any given topic in Wikipedia can be altered by those using Wikipedia and therefore is at best a marginal or unreliable source. Accordingly, the teachings of Wikipedia cannot be relied upon as authoritative and convincing source of evidence. Even if such is relied upon, it is noted that all that the translated portion states is that a decomposition voltage exists. It does not state what the voltage is as applied to water vapor. Accordingly, it provides no convincing proof that electrolysis does not inherently exist in the method of D'Alessandro et al. (which specifically embodies an application of 3 volts and even higher; col. 3, lines 34-36).

With respect to (b), Examiner would like to note that the translated portion is not found to be convincing proof that D'Alessandro et al.'s fuel cell does not inert the anode by electrolysis (as both an electrical current and water vapor is provided). First, it is noted that in "Electrochimie I," the electrolysis being dealt with is of HCl and not water vapor. Therefore, no comparison between the electrolysis in "Electrochimie I" and D'Alessandro et al. can be drawn. Furthermore, it is noted that the decomposition of aqueous HCl is 1.37 volts, wherein "Electrochimie I" specifically mentions that decomposition voltages for other electrolyses are of a similar order of magnitude (1 to 4 volts – see the second full paragraph of the translation). Again, this fails to provide solid proof that not electrolysis takes place in D'Alessandro et al., as water is not specifically mentioned. Additionally, Examiner would like to submit that D'Alessandro et al.'s

teaching does leave reasonable expectation that the decomposition voltage is met. D'Alessandro et al. clearly teaches that a potential of at least 3 volts is applied, and it is further noted that even higher potentials may be used (col. 3, lines 34-36). It is uncertain that how a teaching applying 3 volts or higher would not result in the electrolysis as claimed since (1) the point 3 volts covers a good portion of the range of decomposition voltages listed in "Electrochimie I," (2) the specifically noted 3 volts is higher than the decomposition voltage of that listed for HCl (which is what Applicant appears to be comparing the decomposition of steam to), and (3) D'Alessandro et al. even teaches of applying higher voltages. Accordingly, "Electrochimie I" does not provide positive proof that D'Alessandro et al.'s cell does not undergo electrolysis while inerting. In fact, since D'Alessandro et al. teaches of applying potential up to 3 volts and more, one of ordinary skill in the art would gather that this potential would be sufficiently high to electrolyze water (as "Electrochimie I" states that most decomposition potentials lie between 1-4 volts).

As to (c), Examiner would first like to note that such the portion being relied upon was not submitted as evidence prior to the submitting of the appeal brief. Although it was submitted on the IDS received 1/22/08, the statement of relevancy was only with respect to the abstract, as set forth in the Final Rejection dated May 20, 2008, wherein Applicant was invited to provide a full translation for consideration of the full disclosure of the piece. Thus the newly translated portion (which could have been submitted earlier) is seen as new and untimely evidence. Furthermore, the submitting of only a partial translation is found to be picking and choosing portions of a reference, wherein

the teaching of reference in whole is not clear, and thus the applicability of the portion submitted is not clear. However, Examiner would like to take the time to address this newly submitted portion as applicable. Again, this reference fails to provide solid proof that not electrolysis takes place in D'Alessandro et al. Although it is drawn to protective potentials, the invention is drawn to an electrolysis plant and not a fuel cell plant, and thus direct comparison cannot be made. All the translated portion states is (1) that there is a voltage wherein electrolysis occurs (wherein this voltage is higher than the voltage of damage preventing) and (2) electrolysis should not occur during damage prevention.

With respect to (1): The cited portion fails to state what the decomposition voltage is as applied to water vapor. Accordingly, it provides no convincing proof that electrolysis does not inherently exist in the method of D'Alessandro et al. (which specifically embodies an application of 3 volts and even higher; col. 3, lines 34-36).

With respect to (2): There is no antecedent basis as to what the electrolysis that must not occur pertains to (i.e. the electrolyte, flowed water vapor, etc). Accordingly, a clear comparison of this cited portion to D'Alessandro et al. cannot be made with any certainty. It is again emphasized that such a translated portion provides no convincing proof that electrolysis does not inherently exist in the method of D'Alessandro et al. (which specifically embodies an application of 3 volts and even higher; col. 3, lines 34-36), as it fails to compare the same system, fails to make

clear what the electrolysis pertains to, and fails to set forth the decomposition voltage of water.

With respect to (d), Examiner submits that the evidentiary pieces submitted by Applicant do not clearly show that D'Alessandro et al.'s system does not provide electrolysis (even though electrolysis is not specifically mentioned in D'Alessandro et al.'s system). It is again emphasized that such the pieces relied upon by Applicant fail to clearly establish the decomposition voltage for water vapor and the fact that D'Alessandro et al.'s method does not inherently result in electrolysis, specifically as applied to the fact that D'Alessandro et al. embodies an application of *3 volts and even higher* (col. 3, lines 34-36). Specifically, it is noted that "Electrochemie I" appears to support Examiner's position that decomposition voltage is met, as the decomposition voltage of HCl, which Applicant appears to be comparing to that of water is 1.37 V, wherein decomposition potentials lie between 1-4 volts (which 3 volts or higher, as set forth in D'Alessandro et al. encompasses). Accordingly, Applicant has not clearly set forth that the electrolysis of water does not occur in D'Alessandro et al.

Issue VI – Appellant argues that since D'Alessandro does not disclose that the external voltage applied to the fuel cells produces a reducing atmosphere at the anodes by electrolysis, it is not inherent.

Examiner respectfully disagrees.

Examiner respectfully disagrees with Applicant's position. Again, it is emphasized that D'Alessandro does teach the method as claimed by the instant application. D'Alessandro et al.'s teaching is reiterated again for clarity's sake.

D'Alessandro et al. teach: (1) of a fuel cell with molten electrolytes (although a molten sodium hydroxide (alkali metal hydroxide) is specifically embodied in the example, D'Alessandro et al. of molten carbonate electrolytes as well) (col. 3, lines 58-60; col. 5, lines 27-42); (2) supplying a purging gas to the anode, wherein steam (water vapor) is specifically embodied, to remove hydrogen when the hydrogen source is not being provided to the anode (standby operation wherein no fuel is supplied to the anode half-cell of the fuel cell) (col. 2, lines 64 to col. 3, line7); and (3) applying a direct current potential to the system, wherein 3 volts or higher is embodied (col. 3, lines 19-21 and 29-36). Under these conditions, it would be expected that the prior art produces a reducing atmosphere at the anode by electrolysis (in the presence of the steam supplied to the anode and a voltage potential applied to the system). Accordingly, it would be inherent that the same conditions (reducing by electrolysis). Such a rejection is maintained herein, as no proof or showing is provided that the process used by D'Alessandro would not inert via electrolysis of the steam (water vapor). Additionally, there is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67.

Issue VII – Appellant argues (similarly to that of Issue IV) that D'Alessandro et al. states that the anode is flushed with inert gas, wherein electrolysis would require the presence of a non-inert gas, which is not what D'Alessandro et al. intended.

Examiner respectfully disagrees.

The fact that D'Alessandro et al. does teach of flushing with inert gases, it does not negate the fact that steam is taught to be used, wherein steam (water vapor) electrolyzes upon the application of a current. It also does not negate the fact that D'Alessandro does teach the method as claimed by the instant application. (See the response to Issue I for details in how D'Alessandro teach such a method.) Therefore, a basis of inherency was made and is maintained, as no proof is provided that the process used by D'Alessandro would not inert via electrolysis of the steam (water vapor). There is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67.

Issue VIII – Appellant argues (a) Examiner's reasoning as for the basis for expectation of inherency does not meet what is required to show inherency, as D'Alessandro et al. does not mention that the external voltage it applies induces electrolysis and (b) that one of ordinary skill would take away that the voltage applied is smaller than the decomposition voltage necessary for electrolysis.

Examiner respectfully disagrees.

With respect to (a), a clear basis for inherency has been set forth. Such position is reiterated herein for clarity's sake: "In the case of the instant application the basis for expectation of inherency is that D'Alessandro et al.'s method uses steps employed by the instant application. Therefore, the resulting state of the anodes would be in the same state (inert) after the application of the same method." Examiner is unsure as to

why such a basis does not have any factual and/or technical reasoning. The basis of inherency lies in the fact that since the method of D'Alessandro et al. is the same as that of the instant application, it would provide the same conditions (inerting via electrolysis). It is uncertain how the same method would not provide the same outcome. Accordingly, Examiner submits that the basis of inherency has been properly set forth. It is noted that Applicant has not provided any convincing proof or reasoning as to how D'Alessandro et al.'s system, which operates in the same method as claimed by the instant application (specifically that D'Alessandro embodies applying 3 volts to the system) would not provide the same conditions.

With respect to (b), first, there is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference. *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1377, 67. Accordingly, as set forth in the rejection, electrolysis would be inherent. Additionally, Examiner would like to submit that D'Alessandro et al.'s teaching does leave reasonable expectation that the decomposition voltage is met. D'Alessandro et al. clearly teaches that a potential of at least 3 volts is applied, and it is further noted that even higher potentials may be used (col. 3, lines 34-36). It is uncertain that how a teaching applying 3 volts or higher would not result in the electrolysis as claimed. There has been no proof provided as to how this voltage is smaller than the decomposition voltage. Furthermore, Examiner would like to bring to light that, "Electrochimie I," provided by Applicant appears to support Examiner's position, as it states that decomposition voltages for electrolyses are

between 1-4 volts. Accordingly, one of ordinary skill in the art would gather that the teaching of 3 volts or higher potential would be sufficiently high to electrolyze water, barring proof showing the contrary.

Issue IX – Appellant argues that Examiner's response to arguments in the May 20, 2008 action include conclusory statements without provided any basis and fact and/or technical reasoning to support inherency, specifically with respect to D'Alessandro et al. stating that steam (water vapor) is inert (wherein Appellant submits that this would necessarily mean that no electrolysis would occur).

Examiner respectfully disagrees.

As set forth within the rejection, and above in the response to arguments, Examiner has properly set forth the basis for inherency. Such a position is reiterated herein for clarity's sake: "In the case of the instant application the basis for expectation of inherency is that D'Alessandro et al.'s method uses steps employed by the instant application. Therefore, the resulting state of the anodes would be in the same state (inert) after the application of the same method." Examiner is unsure as to why such a basis does not have any factual and/or technical reasoning. The basis of inherency lies in the fact that since the method of D'Alessandro et al. is the same as that of the instant application, it would provide the same conditions (inerting via electrolysis). It is uncertain how the same method (application of a voltage to steam) would not provide the same outcome (inerting via electrolysis), regardless of whether or not D'Alessandro et al. defines steam to be inert. Accordingly, Examiner submits that the basis of inherency has been properly set forth. It is noted that in response to this, Applicant has

not provided any convincing proof or reasoning as to how D'Alessandro et al.'s system, which operates in the same method as claimed by the instant application would not provide the same conditions (specifically that the application of 3 volts to steam would not yield electrolysis of steam). Accordingly, such arguments are not found to be convincing, and the rejection of record is maintained.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Eugenia Wang/

Eugenia Wang

Examiner, Art Unit 1795

Conferees:

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795

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